

REMARKS

It is respectfully submitted that the present response presents no new issues or new matter and places this case in condition for allowance. Reconsideration of the application in view of the following remarks is requested.

I. The Rejection of Claims 1, 3, 5-7, 11, 14 and 17-18 under 35 U.S.C. 102(b)

Claims 1, 3, 5-7, 11, 14 and 17-18 stand rejected under 35 U.S.C. 102(b) as allegedly being anticipated by Winterbottom et al., CH Patent No. 356,659 ("Winterbottom CH Patent", a French-language document) and Winterbottom et al. USPN 2,930,702 ("Winterbottom US Patent," or collectively, "Winterbottom," with reference made to the US Patent, which is in English). The Examiner states that Applicants' prior argumentation regarding Winterbottom has been considered but is not persuasive. The Examiner alleges that Winterbottom discloses a method for producing a food product comprising contacting meat with 3 to 30% by weight lactobionic acid for a time of 30 minutes to 4 hours and in this time a sufficient amount of antibiotic is absorbed. The Examiner further contends that because Winterbottom discloses the same method that said sufficient amount would include the presently claimed 0.1-20% (weight/weight). In response to Applicants' statement that the reference discloses further dilution resulting in "about 10 ppm of citric acid", the Examiner states that as stated in Winterbottom, the amount and dilution factor can vary and it is the Examiner's position that the food product will result in a sufficient amount of lactobionic acid present in the food product, including the presently claimed range. This rejection is respectfully traversed.

As stated in Applicants' prior response, the pending claims are directed to a food product comprising between 0.1 and 20 % (weight/weight) lactobionic acid, and a method of producing the same. In contrast, Winterbottom does not relate to a food product comprising lactobionic acid in a specified amount; instead it relates to a food product which has been dipped into a solution comprising lactobionic in a specified amount. Thus, Winterbottom does not teach or suggest a food product comprising between 0.1 and 20% (weight/weight) lactobionic acid or a method for producing the same.

Applicants urge the Examiner to reconsider the interpretation of the Winterbottom reference, particularly with respect to the dilution factor.

The Examiner contends that Winterbottom teaches an antibiotic solution containing 3 to 30% by weight of lactobionic acid, and discloses a method for producing a food product which comprises contacting meat with 3 to 30% by weight lactobionic acid for a time of 30 minutes to 4

hours. However, Applicants respectfully direct the Examiner's attention to column 3 of the Winterbottom US Patent.

At column 3, lines 32-36, the Winterbottom US Patent states:

In terms of percent by weight, the composition of this invention should be one containing about 3 to 30% of the antibiotic, about 3 to 30% of the acid, about 1% of the surface active agent and the residue being made up of the diluent. The preferred composition is one con-

This is the language regarding the "3 to 30%" by weight that the Examiner references. The Winterbottom US Patent also goes on to state, at column 3, lines 41-60, that:

In commercial operation the dry composition described above is diluted with water to produce a stock solution containing above 1000 p.p.m. of the antibiotic. This concentration of the antibiotic in the stock can run as high as 10,000 p.p.m., or it might run much lower, for example, 500 p.p.m. However, the concentration 1000 p.p.m. is preferred, because if one goes below 1000 p.p.m., then the volume of liquid becomes excessively large and difficult to handle. If one goes to the other extreme, that of the 10,000 p.p.m., the antibiotic will be difficultly soluble in the water.

The recommended concentration of the antibiotic in the solution in which the poultry will ultimately be dipped may run anywhere from 3 p.p.m. to about 30 p.p.m. The preferred concentration of the antibiotic is that of about 10 p.p.m. Thus the procedure in preparing the solution in which the poultry is to be dipped is merely one of running a sufficient quantity of the stock solution into water to form a solution containing approximately 10 p.p.m. of the antibiotic.

Thus, while the Examiner is correct that the dilution factor according to Winterbottom can vary, it is clear that the recommended concentration of antibiotic according to Winterbottom is from 3 ppm to about 30 ppm. Even more significantly, Winterbottom expressly states at column 3, lines 68-70, that

be varied. The amount of the antibiotic should not exceed about 30 p.p.m., since amounts greater than this are not always removed by cooking. At the other extreme,

Winterbottom states that the proportions of the acid (including for sake of argumentation the exemplary lactobionic acid) to the antibiotic will vary from 1 to 3 parts by weight of the acid to 1

part by weight of the antibiotic. Therefore, as a matter of logic, at the high end, the amount of lactobionic acid is 90 ppm (i.e., 3 parts by weight times 30 ppm maximum of antibiotic).

At best, then, Winterbottom teaches that a diluted composition, not exceeding 90 ppm or 0.009% of lactobionic acid, is used to prepare a poultry dip solution. It is simply not seen how the exposure of such a low percentage of lactobionic acid could result in the exposed poultry taking up so much lactobionic acid as to result in a food product comprising 0.1 and 20% (weight/weight) lactobionic acid. As a matter of logic, Applicants respectfully submit that the Examiner's argumentation must fail.

Therefore, Applicants respectfully submit that Winterbottom does not teach or suggest the claimed food product comprising between 0.1 and 20% (weight/weight) lactobionic acid or a method for producing the same.

For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. 102(b). Applicants respectfully request reconsideration and withdrawal of the rejection.

II. The Rejection of Claims 2, 4, 8-10 and 12-13 under 35 U.S.C. 103(a)

Claims 2, 8-10 and 12 stand rejected under 35 U.S.C. 103(a) as unpatentable over Winterbottom in view of Roselle et al., USPN 6,773,737 ("Roselle"). Claim 4 stands rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Winterbottom or Roselle in view of Halden et al. EP 0 354 262 ("Halden"). Claim 13 stands rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Winterbottom or Roselle in view of Hayashabira GB Patent No. 1 325 727 ("Hayashabira"). The Examiner applies the teachings of Winterbottom as above, and states that Roselle teaches a method for treating food products with a solution containing calcium lactobionate. The Examiner contends that it would have been obvious to use a solution containing calcium lactobionate in minced meat or surimi as disclosed by Roselle, in Winterbottom, given Roselle's teaching of the solution being effective for killing microorganisms in food. The Examiner cites Halden as teaching marinating meat using tumbling procedures, and states that this is a well known procedure in the art. The Examiner cites Hayashabira as producing lactobionic acid from lactose by enzymatic oxidation. The Examiner also states that Halden and Hayashabira are cited as teaching references and therefore it is not necessary for these secondary references to teach all of the features of the presently claimed invention. This rejection is respectfully traversed.

As discussed above, Winterbottom does not disclose or suggest the pending claims. For at least the reasons set forth above regarding Winterbottom alone, neither does Winterbottom in combination with Roselle, Halden and/or Hayashabira teach or suggest the pending claims.

For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. 103(a). Applicants respectfully request reconsideration and withdrawal of the rejection.

III. Additional Art

Applicants acknowledge the Examiner's statement that FR 556 064 and U.S. Patent No. 6,045,990 are cumulative to the rejections of record, and that U.S. Patent Nos. 4,214,518 and 5,714,188 disclose the use of tumbling to marinate meat products. However, these references do not appear to be the basis of any outstanding rejection and therefore no response appears to be required.

IV. Conclusion

In view of the above, it is respectfully submitted that all claims are in condition for allowance. Early action to that end is respectfully requested. The Examiner is hereby invited to contact the undersigned by telephone if there are any questions concerning this amendment or application.

All required fees were charged to Novozymes North America, Inc.'s Deposit Account No. 50-1701 at the time of electronic filing. The USPTO is authorized to charge this Deposit Account should any additional fees be due.

Respectfully submitted,

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